

2 Sep 1993

PS1ZN-A  
POWER SUPPLY

**1. GENERAL.** This procurement requires a ruggedized, dc power supply.

**2. CLASSIFICATION.** Type II, Class 2, Style A, and Color R in accordance with MIL-T-28800. The equipment shall be contained in a cover-less style A enclosure and the following additional tests are invoked.

- a. Solar radiation.
- b. Random vibration.
- c. 30" transit drop.
- d. Loose cargo bounce test.

**3. OPERATIONAL REQUIREMENTS.** The power supply shall be used to supply power to field transportable HF and VHF radios and other tactical equipment that requires a source of 28V dc. The equipment shall be of ruggedized construction for use in adverse environmental conditions and shall be capable of operation within the minimum accuracies, limits, and specifications set forth below.

**3.1 Output voltage and current.** 28 Vdc, 0 to 60A.

**3.1.1 Load regulation.** For no-load to full-load excursions:  $\pm 2V$  voltage regulation.

**3.1.2 Line regulation.** For line-voltage variations of  $\pm 10\%$  :  $\pm 2V$  voltage regulation.

**3.1.3 Ripple and noise.** 500 mV peak-to-peak.

**3.1.4 Temperature coefficient.** For any one degree C change in the ambient temperature: 0.02% voltage regulation.

**3.2 Indicator.** Output voltage. Accuracy:  $\pm 1\%$  FS.

**3.3 Connectors.** Input connector (ac line) Cannon Type MS3102R22-2P. Output connector (dc out) Cannon Type MS3102R22-2S.

**4. GENERAL REQUIREMENTS.**

**4.1 Power source.** MIL-T-28800 nominal power source requirements are invoked. Maximum power consumption: 2000W.

**4.2 Weight.** 46 kg (100 lb) maximum.

**4.3 Lithium batteries.** Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.